

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEBRASKA

GERALD J. KLEIN, on behalf of himself  
and all similarly situated;

Plaintiff,

vs.

TD AMERITRADE HOLDING  
CORPORATION, TD AMERITRADE, INC.,  
and FREDRIC TOMCZYK,

Defendants.

**8:14CV396**

**MEMORANDUM AND ORDER**

This matter is before the court on an objection filed by lead plaintiff Roderick Ford,<sup>1</sup> [Filing No. 234](#), to the Findings and Recommendation (“F&R”) of the United States Magistrate Judge, [Filing No. 233](#), on the lead plaintiff’s motion for class certification, appointment of class representative, and appointment of class counsel, [Filing No. 187](#). This is a putative class action filed by retail equity traders harmed by uniform order routing practices implemented by defendants TD Ameritrade Holding Corporation, TD Ameritrade, Inc., and Frederic Tomczyk (collectively, “Defendant” or “TD Ameritrade”). The plaintiff contends that defendant’s order routing practices involve use of computer algorithms to send its customers’ equity orders to venues that pay the defendant the most money, without regard to whether the venues would provide the best possible execution of those orders. The plaintiff further alleges defendant failed to disclose the practice to its customers. The plaintiff contends the practices are

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<sup>1</sup> Roderick Ford is lead plaintiff and putative class representative. See [Filing No. 153](#), motion by Kwok L. Shum to withdraw as lead plaintiff (noting Shum had been appointed as one of the lead plaintiffs, along with Roderick Ford, by order of the United States District Court of New Jersey on December 1, 2014); [Filing No. 154](#), text order granting motion.

inconsistent with the defendant's duty of best execution and seeks remedies for violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, [15 U.S.C. § 78a](#) et seq. The plaintiff contends that the purported class suffers economic loss due to orders for securities trades being unfilled, underfilled, filled at a suboptimal price, and/or filled in a manner that adversely affects the order's performance post-execution. He seeks, on behalf of the class, damages and injunctive relief.

Plaintiff seeks certification of a class defined as follows:

[A]ll clients of TD Ameritrade between September 15, 2011 and September 15, 2014 who placed orders that did not receive best execution, in connection with which TD Ameritrade received either liquidity rebates or payment for order flow, and who were thereby damaged (the "Class").

([Filing No. 187](#)). He also seeks certification of a class for injunctive relief under [Federal Rule of Civil Procedure 23\(b\)\(2\)](#):

[A]ll clients of TD Ameritrade between September 15, 2011 and September 15, 2014 who placed orders in connection with which TD Ameritrade received either liquidity rebates or payment for order flow and who continue to be clients of TD Ameritrade (the "Injunctive Class").

The only relief sought by the purported Rule 23(b)(2) class is an injunction requiring defendant to change its common order routing practices. Alternatively, the plaintiff seeks class certification of a limited issue class on liability under Rule 23(c)(4).

In opposition to the plaintiff's motion for class certification, the defendant argues that proof of economic loss and reliance will require extensive individualized inquiries into evidence specific to each class member and each of their orders. Solely for purposes of the class certification motion, TD Ameritrade does not dispute that Ford's allegations regarding its order routing policies—and TD Ameritrade's substantial

defenses to those allegations—could be proven or disproven with class-wide evidence. See [Filing No. 194](#), Defendant’s Brief at 4. It contends however, that common evidence cannot prove the required elements of economic loss and reliance and the individualized inquiries relating to those elements predominate.

After a hearing on March 27, 2018, the Magistrate Judge recommended that the plaintiff’s motion be denied. [Filing No. 233](#), F&R at 1. The Magistrate Judge stated that “[p]laintiff has not shown that he can prove economic harm on a class-wide basis through use of a tested, complete algorithm.” *Id.* at 8. She also found “there are certain aspects necessary to evaluate economic loss in a best execution case that simply cannot be captured through algorithmic analysis[,]” namely, “an individual’s state of mind or investment strategy.” *Id.* at 9. She found that “[g]iven the individual, order-by-order inquiries necessary to determine whether each individual customer actually sustained an economic loss, Rule 23(b)(3)’s predominance requirement has not been satisfied.” *Id.* She also found the proposed class fails to satisfy Rule 23(b)(3)’s superiority requirement, finding resolution of the claims through a class action would create case management issues and would be an inefficient allocation of judicial resources. *Id.* at 10. Further, she stated, in light of those individual inquiries, a limited certification under [Federal Rule of Civil Procedure 23\(c\)\(4\)](#) would not promote efficiency or judicial economy. *Id.* at 13.

The lead plaintiff objects to the recommendation. [Filing No. 234](#). He reasserts the arguments made to the Magistrate Judge and maintains that class certification is appropriate based on the common question of whether the defendant sought to

maximize order flow revenue in such a manner that caused a failure to satisfy the duty to provide best execution of their clients' trades.

## I. BACKGROUND

### A. Procedural History

The procedural history of the action is relevant to the court's determination. Earlier in this action, the court denied defendant's motion to dismiss the plaintiff's federal securities fraud claim, finding that the presumption of reliance established in [Affiliated Ute Citizens of Utah v. United States](#), 406 U.S. 128, 153–54 (1972), applies to the plaintiff's claims. [Filing No. 104](#), Memorandum and Order at 17; see [Zola v. TD Ameritrade, Inc.](#), 172 F. Supp. 3d 1055, 1061 (D. Neb. 2016), *appeal dismissed* (May 18, 2016), *aff'd*, 889 F.3d 920 (8th Cir. 2018) (affirming dismissal of state law claims under the Securities Litigation Uniform Standards Act of 1998 ("SLUSA"), 15 U.S.C. § 78bb(f)(1), and noting that the gravamen of the plaintiff's claims involves a misrepresentation or omission of a material fact in connection with the purchase or sale of a covered security); see also [Newton v. Merrill Lynch, Pierce, Fenner & Smith, Inc.](#), 259 F.3d 154, 174–75 (3d Cir. 2001), *as amended* (Oct. 16, 2001) (applying *Affiliated Ute* presumption of reliance to class claims alleging fraudulent acceptance by brokers of orders under duty of best execution).

Also, the court sustained the defendant's motion for a protective order and denied the plaintiff's request for discovery of extensive class-wide trading records. [Filing No. 163](#), Order. In moving to limit discovery to representative order data, the defendant made the following argument:

Economic loss is an essential element of liability under Section 10(b), but Lead Plaintiff does not need to prove or even “approximate” it for all class members prior to class certification. That is a merits inquiry. Rather, at this stage of the proceedings, Lead Plaintiff must show that he has a valid methodology for proving economic loss at the merits stage by common proof that does not vary by class member. If he cannot make that showing by reference to more than 10,000 equity orders, he will not be helped by more trade data. Further, if Lead Plaintiff required sufficient discovery to prove economic loss at trial before the Court could rule on class certification, it would entirely subsume the merits inquiry into the class certification inquiry and render meaningless the Court’s limitation on discovery (as well as [Fed. R. Civ. P. 23\(c\)\(1\)\(A\)](#) and 26(b)(1)).

[Filing No. 155](#), Defendant’s Brief at 4-5 (emphasis in original, footnote omitted).

Based on that line of reasoning, and on the defendant’s concession, “for purposes of the class certification process, [of] many of the plaintiff’s elements of proof for class certification,” Magistrate Judge Thalken granted the defendants request for a protective order. [Filing No. 163](#), Order at 3-4 (noting that “[TD Ameritrade] contends the chief issues for class certification are economic loss and reliance”). The Magistrate Judge limited discovery, at that point in the litigation, to trading records of representative accounts. *Id.* In response to the plaintiff’s objections to the Magistrate Judge’s order, the defendant stated “[t]he question of whether economic loss can be assessed on a common basis for the entire class can be resolved by consideration of Lead Plaintiff’s equity order data, and nothing else.” [Filing No. 171](#), Defendant’s Brief at 4-5. This court affirmed the Magistrate Judge’s order, finding that the plaintiff had not refuted TD Ameritrade’s contention that “the question of whether economic loss can be assessed on a common basis for the entire class can be resolved by consideration of the representative plaintiffs’ equity order data” and agreeing that the plaintiff had not

demonstrated that he could not “make a showing of economic loss from a representative sample.” [Filing No. 177](#), Order at 4.

The court later overruled the defendant’s motion to exclude the testimony of the plaintiff’s experts Haim Bodek and Dr. Shane Corwin under *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 589 (1993). [Filing No. 208](#), Memorandum and Order at 7-8. The court found that “[b]oth experts appear to be qualified to testify” and that the experts opinions were “based on methodology that appears reliable relevant—similar methods have been used in other securities cases.” *Id.* at 7.

#### B. Facts

For purposes of this motion, defendant concedes that the securities fraud elements of misrepresentation or omission and scienter are capable of class-wide proof. Proof of the elements of reliance and economic loss are the subject of the parties’ dispute on class-action status.

The record shows that Dr. Shane Corwin and Haim Bodek are experts in the field of financial markets. Bodek and Dr. Corwin both describe how an out-of-pocket loss can be measured for each TD Ameritrade customer. See [Filing No. 189-2](#), Ex. 2, Declaration of Haim Bodek (“Bodek Decl.”) at 8-14; [Filing No. 189-3](#), Ex. 3, Expert Report of Shane A. Corwin (“Corwin Report”) at 4-5. Bodek performed an analysis of the orders placed by plaintiff Roderick Ford and former plaintiff Kwok L. Shum. [Filing No. 189-2](#), Bodek Decl. at 6. He also utilized historical market data obtained from Thesys Technologies LLC (“Thesys”) and International Continental Exchange, Inc. (“ICE”), and various derived and enhanced data, including, for example, a “fast” version

of the National Best Bid or Offer (“NBBO”),<sup>2</sup> as part of his analysis. *Id.* Derived data includes, for example, data that is based on the Kwok and Shum order data and market data, such as data indicating whether an order was (i) afforded price improvement, meaning that it received a price better than the NBBO, or (ii) subject to a trade-through, meaning that it was executed at a price inferior to the NBBO. *Id.* The evidence presented by the plaintiff shows the experts used computer analysis and metrics that are widely used and accepted in the industry, by regulators such as the Financial Investments Regulatory Agency (“FINRA”) and the Securities Exchange Commission (“SEC”) and in academic studies to examine the execution quality of securities orders.

Bodek states that the duty of best execution requires that brokers seek the best price, including the chance to obtain a better price than the NBBO. *Id.* at 4. At the hearing, he testified he had enough order data to have confidence in the statistical soundness of his conclusions. [Filing No. 229](#), Transcript (“Tr.”) at 75. He testified that his analysis of Shum’s and Ford’s trading data showed that both had been harmed by TD Ameritrade’s order-routing practices. *Id.* at 78-80.

Dr. Corwin described Bodek’s methodology as follows:

The methodology involves three stages. The first stage involves the initial application of three metrics to calculate the harm associated with failure to provide best execution, the second stage uses an order book analysis to analyze whether the orders—whether orders could have been executed if routed differently, and the third stage uses a series of exclusions to

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<sup>2</sup> The NBBO is a price listed throughout the national market system. The fast NBBO is a synthesis of the best bids and offers from each of the exchanges generated from the order data and market data. [Filing No. 189-2](#), Bodek Decl. at 6. The fast NBBO based off of direct feeds was only used as a hypothetical benchmark to illustrate the best possible prices that TD Ameritrade could have obtained. *Id.*

eliminate cases where the harm may not be attributable to the actions of TD Ameritrade.<sup>3</sup>

*Id.* at 32. He further explained that “[t]he order book analysis is performed by an algorithm which takes into account order data from all of the different venues as well as the trade data and order data from TD Ameritrade.” *Id.* at 45. Bodek’s findings were consistent with the plaintiff’s theory that defendant TD Ameritrade routed orders to venues that offered the greatest order routing payments rather than venues that were likely to offer the best execution quality. Bodek concluded that:

[the] failure of the duty of best execution was endemic in TD Ameritrade’s order routing practices, resulting in systematic economic harm in the form of exposure to impermissible trade-throughs, increased adverse selection, and lost opportunity costs, and that the magnitude of these harms could be calculated for each affected TD Ameritrade customer through algorithmic analysis.

[Filing No. 189-2](#), Bodek Decl. at 14.

At the hearing, Bodek stated that he would need all customer orders to properly run an order book analysis without over counting the harm. [Filing No. 229](#), Tr. at 114. He also stated that his algorithm and modern computing could handle all the data involved in this litigation. *Id.* at 114. The order book analysis Bodek proposes would involve hundreds of millions of data points over a multi-year period. *Id.* at 107. He agreed with Dr. Kleidon that any reliable analysis of economic loss would need to take into account certain exclusions, exceptions or exemptions (including whether the

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<sup>3</sup> Those metrics include Instantaneous Fill Quality or IFQ, Time Elapsed Fill Quality or TEFQ, and Time Elapsed Opportunity Cost or TEOC. See [Filing No. 189-2](#), Bodek Decl. at 8-9. Dr. Corwin testified that Bodek came up with these terms, but that all three metrics are widely used by academics, practitioners, and the SEC. [Filing No. 229](#), Tr. at 32-33. Bodek explains that the metrics relate to different harms or losses: “IFQ is a direct measure of trade-throughs, TEFQ is a direct measure of adverse selection, and TEOC is a direct measure of opportunity cost.” [Filing No. 189-2](#), Bodek Decl. at 20.



security was a non-U.S. security, whether the order was subject to one or more of the several trade through exemptions in Rule 611 of Regulation NMS, whether the order was placed outside the market's regular hours, and whether an order was routed during a trading halt or during a fast market, or was part of an oversized order exclusion). *Id.* at 108, 110. Bodek testified that all of the exclusions could be excluded by his code in the same manner that he filtered other exclusions. *Id.* at 99; see also [Filing No. 189-2](#), Ex. 2., Bodek Decl. at 16-18.

Bodek's initial findings concerning overall execution quality and harm were supported by an additional analysis by Dr. Corwin showing that the sample orders received substantially inferior price improvement and by Dr. Corwin's conclusion that TD Ameritrade's order routing practices did not comply with its duty of best execution. *Id.* at 55-56. He testified that he determined that Bodek's methodology could be used to identify best execution failures and the associated harm with customer orders, and the methodology could be used as a basis to form a damages model. *Id.* at 18. He also stated that although he had not seen the computer code associated with Bodek's algorithm, he reviewed and verified the output with respect to Shum's trading data. *Id.* at 56.

Corwin testified that "that best execution as a responsibility applies to each order individually" and that a "customer's individual trading strategy or investment decisions either before or after each order has no impact on the assessment of harm related to providing best execution on the original order." *Id.* at 42-43. Dr. Corwin explained that a full list of exclusions necessary to yield precise damage figures would require discovery that was not provided to the plaintiff. *Id.* at 46. ("The best place to determine

an appropriate list of exclusions would be to understand TD Ameritrade's routing systems themselves, because those systems and the evaluation of execution quality related to that would have to take those exclusions into consideration. . . . We've not been given that information.”).

Defendant’s expert Dr. Allan Kleidon criticized Bodek’s methodology. He testified that “the algorithm that has been proposed by plaintiffs and Mr. Bodek here in this matter does not determine whether there's economic loss for everybody in the class, in the putative class, or by how much in this particular matter.” *Id.* at 145. He stated that “the methodology proposed by Mr. Bodek does not demonstrate that it is possible to identify economic loss for each individual member of the putative class absent individualized inquiry, and, in fact, in my opinion, such individualized inquiry would be necessary to establish economic harm.” *Id.* at 118. His opinion was based in part on the fact that Bodek’s methodology did not account for an individual’s trading strategy. *Id.* at 121-122.

Bodek testified he enhanced his methodology after getting Kleidon’s feedback. *Id.* at 76; see also [Filing No. 189-2](#), Ex. 2, Bodek Decl., Ex. 2.C, Expert rebuttal report of Haim Bodek. Dr. Corwin also testified that the subsequent analysis in Bodek’s rebuttal report provides the same results or confirms those reports with an analysis that directly responds to Dr. Kleidon's criticisms. *Id.* at 63. In his expert report, Bodek states:

Overall, my analysis shows that TD Ameritrade disadvantaged Shum’s and Ford’s orders with an unacceptable level of trade-throughs, as well as missed price improvement and fill opportunities, and exposed his orders to significant adverse selection, thus resulting in tangible economic harm. This combination should have been identified as toxic and remedied by TD Ameritrade.

While Shum's and Ford's profiles are those of active traders, my conclusion is that the nature of economic harm suffered is not specific to their identity and corresponding trading strategies, but instead arises from TD Ameritrade's general routing / execution practices, such as its use of destinations that consistently yield inferior execution quality. Although trading frequency is one of the determinants of a specific customer's damages, the nature of damages is very likely to remain the same for every TD Ameritrade customer and will turn on the same concepts (e.g., the presence of trade-throughs, adverse selection, timeliness of execution, etc.). In other words, just like Shum and Ford, other customers of TD Ameritrade have been systematically harmed. Furthermore, I hold the opinion that the analysis provided herein demonstrates it is feasible to apply a general methodology to measure *each customer's damages* over a specific period of time, as well *aggregate class-wide damages*. Such a methodology would be based on each customer's stream of transactions rather than any taxonomy depending on individual trading strategies.

More specifically, an algorithm, i.e., a computer program, can perform this task of measuring both individual and aggregate damages on an automated basis. Such an algorithm would use the relevant stream of transactions (based on data provided by TD Ameritrade) as an input and, as described in the methodology used in this report, would merge this input with the available market data provided by the SIP and direct feeds in order to assess execution quality and quantify the harm from the taxonomy of abuses described above. Although some modest additional data cleanup / normalization would be required for customer order-related information, the algorithms used in this preliminary assessment would produce the required computations in an unbiased manner. The marginal cost of running a more extensive analysis on a class wide basis utilizing the analytical software developed for this analysis is relatively low and would bring efficiencies to a process that would otherwise be cost prohibitive if resolved individually.

[Filing No. 189-2](#), Ex. 2, Bodek Decl., Ex. 2.A, Expert Report of Haim Bodek at 20.

Bodek originally maintained that if he were "provided access to the entire data set, [he would have been] capable of generating a report identifying each instance in which a TD Ameritrade client's order was routed to a venue that was not likely to, and did not in fact, provide best execution[.]" [Filing No. 151-3](#), Bodek Decl. at 2.

Admittedly, Bodek did not complete a finalized damages model which would have required more extensive discovery. In his rebuttal report, he contends the economic harm that results from a failure to route correctly “can be identified algorithmically for each affected order.” [Filing No. 189-2](#), Ex. 2, Bodek Decl., Ex. 2.C, Expert Rebuttal Report of Haim Bodek at 22-23. Bodek concedes that the “Kleidon Report in effect improves [Bodek’s] methodology by providing clearly defined and algorithmically implementable conditions where transactions should be excluded from any calculation of economic harm, providing an additional step towards building a valid model of damages for this Action.” [Filing No. 189-2](#), Ex. 2, Bodek Decl. at 16. Bodek identifies several categories of trades that can be excluded from the data set *ab initio* or exempted via algorithmic analysis and he explains that his order book analysis algorithm can incorporate a queue position ascertainment mechanism that addresses Dr. Kleidon’s liquidity concerns. *Id.* at 16-18. Furthermore, Bodek states

a full and complete damages model can be built off of the current algorithmic approach to calculate specific, economic harm across the class. Such a damages model would take the subset of identified orders that incurred economic harm for which TD Ameritrade was responsible and, with the modifications discussed in this report, calculate total damages over each independent transaction to arrive at a total damage figure for each customer within the class. The current measures of IFQ, TEFQ, and TEOC, which fully encapsulate the determination of economic harm, presently constitute upper bounds on the potential damages claim that can be modified as described above, though the IFQ metric currently provides an accurate damages assessment and would require only minor modification to yield precise damages figures. Again, once the methodology is fully tailored, the entire model would be automated.

*Id.*, Ex. 2.C at 23.

## II. LAW

### A. Standard of Review

“[W]hen a party objects to the report and recommendation of a magistrate judge concerning a dispositive matter, ‘[a] judge of the court shall make a *de novo* determination of those portions of the report or specified proposed findings or recommendations to which objection is made.’” [United States v. Lothridge](#), 324 F.3d 599, 600 (8th Cir. 2003) (quoting 28 U.S.C. § 636(b)(1)); see also Fed. R. Civ. P. 72(b). A motion to “dismiss or to permit the maintenance of a class action” is dispositive and therefore subject to such *de novo* review. 28 U.S.C. § 636(b)(1). “Following [*de novo*] review, the district court ‘may accept, reject, or modify, in whole or in part, the findings or recommendations made by the magistrate judge.’” [Bussing v. COR Clearing, LLC](#), 20 F. Supp. 3d 719, 725 (D. Neb. 2014).

#### B. Class Action Certification

The court generally agrees with and adopts the Magistrate Judge’s recitation of the law governing class action certification and need not repeat it here.<sup>4</sup> Under the Federal Rules of Civil Procedure, “[o]ne or more members of a class may sue or be sued as representative parties on behalf of all members only if: (1) the class is so numerous that joinder of all members is impracticable; (2) there are questions of law or fact common to the class; (3) the claims or defenses of the representative parties are typical of the claims or defenses of the class; and (4) the representative parties will fairly and adequately protect the interests of the class.” Fed. R. Civ. P. 23(a); see [Wal-Mart Stores, Inc. v. Dukes](#), 564 U.S. 338, 349 (2011) (describing requirements as (1) numerosity; (2) commonality; (3) typicality; and (4) adequacy of representation). “In

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<sup>4</sup> Because the Magistrate Judge concluded that Plaintiff could not satisfy the requirements of Rule 23(b), she did not address the requirements of Rule 23(a). [Filing No. 233](#), F&R at 13 n.5. The court will address those requirements.

order to obtain class certification, a plaintiff has the burden of showing that the class should be certified and that the requirements of Rule 23 are met.” *Coleman v. Watt*, 40 F.3d 255, 258-59 (8th Cir. 1994).

A number of factors are relevant to the numerosity requirement of Rule 23(a), “the most obvious of which is, of course, the number of persons in the proposed class.” *Paxton v. Union Nat. Bank*, 688 F.2d 552, 559 (8th Cir. 1982); compare *Tate v. Weyerhaeuser Co.*, 723 F.2d 598, 609 (8th Cir. 1983) (noting that seven to fourteen class members is not enough) with *Arthur Young & Co. v. Reves*, 937 F.2d 1310, 1323 (8th Cir. 1991) (finding that 1,685 potential plaintiffs was a sufficiently large number). In addition to the size of the class, the court may also consider the nature of the action, the size of the individual claims, the inconvenience of trying individual suits, and any other factor relevant to the practicability of joining all the putative class members. *Paxton*, 688 F.2d at 559-60. A putative representative may fail its burden to show numerosity where he or she does not actually identify even the approximate size of the class or demonstrate the impracticability of joinder. *Belles v. Schweiker*, 720 F.2d 509, 515 (8th Cir. 1983).

Commonality is not required on every question raised in a class action. *DeBoer v. Mellon Mortgage Co.*, 64 F.3d 1171, 1174 (8th Cir. 1995). Rather, “Rule 23 is satisfied when the legal question ‘linking the class members is substantially related to the resolution of the litigation.’” *Id.* (quoting *Paxton*, 688 F.2d at 561). The class members’ claims must depend upon a common contention of such a nature that it is capable of classwide resolution—which means that determination of its truth or falsity

will resolve an issue that is central to the validity of each one of the claims in one stroke.

*Wal-Mart Stores, Inc. v. Dukes*, 131 S. Ct. 2541, 2545, 180 L. Ed. 2d 374 (2011)

Typicality under Rule 23(a)(3) means “that there are ‘other members of the class who have the same or similar grievances as the plaintiff.’” *Alpern v. UtiliCorp United, Inc.*, 84 F.3d 1525, 1540 (8th Cir. 1996) (quoting *Donaldson v. Pillsbury Co.*, 554 F.2d 825, 830 (8th Cir. 1977)). The burden is fairly easily met so long as other class members have claims similar to the named plaintiff. *Id.* (noting that factual variations in the individual claims will not normally preclude class certification if the claim arises from the same event or course of conduct as the class claims and gives rise to the same legal or remedial theory).

The adequacy of representation requirement of Rule 23(a)(4) is of critical importance in every class action. *Hervey v. City of Little Rock*, 787 F.2d 1223, 1230 (8th Cir. 1986). That inquiry reflects concerns about whether the class representative’s interests are the same as those of the members of the class and whether the representative and his counsel will competently and vigorously pursue the lawsuit. *Id.*; *Paxton*, 688 F.2d at 562-63. Also, “[a] district court has a duty to assure that a class once certified continues to be certifiable under Fed. R. Civ. P. 23(a).” *Day v. Celadon Trucking Servs., Inc.*, 827 F.3d 817, 830–31 (8th Cir. 2016) (quoting *Petrovic v. Amoco Oil Co.*, 200 F.3d 1140, 1145 (8th Cir. 1999) (citation omitted)).

If the requirements of numerosity, commonality, typicality, and adequacy are satisfied, a plaintiff must satisfy one of the three subsections of Rule 23(b). *In re St. Jude Medical, Inc.*, 425 F.3d 1116, 1119 (8th Cir. 2005). Rule 23(b)(3) provides that a class action may be maintained if the court finds the questions of law or fact common to

members of the class predominate over the questions affecting only individual class members, and a class action is the superior method for fair and efficient adjudication of the dispute. *Id.*; Fed. R. Civ. P. 23(b)(3). The Eighth Circuit has “explained that ‘[t]he predominance inquiry requires an analysis of whether a prima facie showing of liability can be proved by common evidence or whether this showing varies from member to member.’” *Day*, 827 F.3d at 833 (quoting *Halvorson v. Auto–Owners Ins. Co.*, 718 F.3d 773, 778 (8th Cir. 2013)). Rule 23(b)(3) “tests whether proposed classes are sufficiently cohesive to warrant adjudication by representation.” *Id.* (quoting *Amchem Products, Inc. v. Windsor*, 521 U.S. 591, 623 (1997) (citation and footnote omitted)). The matters pertinent to the Rule 23(b)(3) inquiry include: the class members’ interests in individually controlling the prosecution or defense of separate actions; the extent and nature of any litigation concerning the controversy already begun by or against class members; the desirability or undesirability of concentrating the litigation of the claims in the particular forum; and the likely difficulties in managing a class action. Fed. R. Civ. P. 23(b)(3)(A)-(D).

Federal Rule of Civil Procedure 23(b)(3) requires that, before a class is certified under that subsection, a district court must find that questions of law or fact common to class members predominate over any questions affecting only individual members. See *Tyson Foods, Inc. v. Bouaphakeo*, 136 S. Ct. 1036, 1045 (2016). Importantly, “[w]hen there are issues common to the class that predominate, ‘the action may be considered proper under Rule 23(b)(3) even though other important matters will have to be tried separately, such as damages or some affirmative defenses peculiar to some individual class members.’” *Day*, 827 F.3d at 833 (quoting *Bouaphakeo*, 136 S. Ct. at 1045



(quotation and citation omitted)). The presence of individualized damages issues does not defeat the predominance of questions common to the class. *Menocal v. GEO Grp., Inc.*, 882 F.3d 905, 926–27 (10th Cir. 2018); see also *Wallace B. Roderick Revocable Living Tr. v. XTO Energy, Inc.*, 725 F.3d 1213, 1220 (10th Cir. 2013) (“[T]he fact that damages may have to be ascertained on an individual basis is not, standing alone, sufficient to defeat class certification.”) (quoting *McLaughlin v. Am. Tobacco Co.*, 522 F.3d 215, 231 (2d Cir. 2008)); 2 William B. Rubenstein, *Newberg on Class Actions* § 4:54 & n.2 (5th ed., Dec. 2017 update) (stating that “courts in every circuit have uniformly held that the 23(b)(3) predominance requirement is satisfied despite the need to make individualized damage determinations” and listing cases).

Class ascertainability is “an essential prerequisite of a class action, at least with respect to actions under Rule 23(b)(3).” *Carrera v. Bayer Corp.*, 727 F.3d 300, 306 (3d Cir. 2013) (quoting *Marcus v. BMW of N. Am., LLC*, 687 F.3d 583, 593 (3d Cir. 2012)). “If class members are impossible to identify without extensive and individualized fact-finding or ‘mini-trials,’ then a class action is inappropriate.” *Marcus*, 687 F.3d at 593. In the Eighth Circuit, the question of whether a proposed class is clearly ascertainable is answered as part of the rigorous analysis performed under Rule 23; it is not addressed “as a separate, preliminary requirement.” *Sandusky Wellness Ctr., LLC v. Medtox Sci., Inc.*, 821 F.3d 992, 996 (8th Cir. 2016).

A representative sample is a permissible method of proving classwide liability. *Bouaphakeo*, 136 S. Ct. at 1046 (noting that if other relevant circumstances are the same, “the experiences of a subset of [plaintiffs] can be probative as to the experiences of all of them.”). Further, the fact that potential class members may be uninjured by the

conduct at issue does not prevent class certification. See [Bouaphakeo](#), 136 S. Ct. at 1050 (finding that “the question whether uninjured class members may recover” was not “yet fairly presented . . . because the damages award ha[d] not yet been disbursed” and the record did not “indicate how it will be disbursed”). Insofar as a discrete group of class members are not found to be injured by the alleged conduct at issue, they may be excluded from the class. See [Vogt v. State Farm Life Ins. Co.](#), No. 2:16-CV-04170-NKL, 2018 WL 1955425, at \*3 (W.D. Mo. Apr. 24, 2018). “Even after a certification order is entered, the judge remains free to modify it in the light of subsequent developments in the litigation.” [Day](#), 827 F.3d at 830 (quoting [Gen. Tel. Co. of Sw. v. Falcon](#), 457 U.S. 147, 160 (1982) (footnote omitted)); see also [Fed. R. Civ. P. 23\(c\)\(1\)\(C\)](#) (“An order that grants or denies class certification may be altered or amended before final judgment.”).

In addition to the Rule 23(a) and (b) requirements, Rule 23(c)(1)(B) requires that “[a]n order that certifies a class action must define the class and the class claims, issues, or defenses, and must appoint class counsel under Rule 23(g).” Under Rule 23(c)(4), “[w]hen appropriate, an action may be brought or maintained as a class action with respect to particular issues.” [Fed. R. Civ. P. 23\(c\)\(4\)](#); see [In re St. Jude Medical Inc.](#), 522 F.3d 836, 841 (8th Cir. 2008).

Although the Supreme Court has directed courts to be “rigorous” in reviewing a motion for class certification, which “may entail some overlap with the merits of the plaintiff’s underlying claim,” courts should not “engage in free-ranging merits inquiries at the certification stage.” [Amgen Inc. v. Conn. Ret. Plans & Trust Funds](#), 568 U.S. 455, 466 (2013) (quotations omitted).

### C. Securities Fraud/Duty of Best Execution

The necessary elements of a Rule 10b–5 violation are (1) a misrepresentation or omission of a material fact in connection with the purchase or sale of a security; (2) scienter on the part of the defendant; (3) reliance on the misrepresentation; and (4) damage resulting from the misrepresentation. [Newton, 259 F.3d at 173](#). Proof of materiality is not needed to ensure that the questions of law or fact common to the class will “predominate over any questions affecting only individual members” as the litigation progresses. [Amgen Inc., 568 U.S. at 467](#). “[B]ecause ‘[t]he question of materiality . . . is an objective one, involving the significance of an omitted or misrepresented fact to a reasonable investor,’ materiality can be proved through evidence common to the class.” [Id.](#) (quoting [TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 445 \(1976\)](#)) (also noting materiality is a common question for purposes of Rule 23(b)(3)). Also, “[a] failure of proof on the common question of materiality ends the litigation and thus will never cause individual questions of reliance or anything else to overwhelm questions common to the class.” [Id. at 468](#).

In cases “involving primarily a failure to disclose [material facts], positive proof of reliance is not a prerequisite to recovery.” [Affiliated Ute, 406 U.S. at 153](#). A presumption of reliance is also warranted in fraud-on-the-market cases, where the price at which a stock is traded is presumably affected by the fraudulent information, thus injuring every investor who trades in the security. [Newton, 259 F.3d at 179](#). “Like a securities dealer’s failure to disclose its policy of overcharging investors, defendants’ execution of investors’ trades at the NBBO price, when better prices may have been available from

alternative services, constitutes a potentially fraudulent common course of conduct from which reliance can be presumed.” *Id. at 177*.

The “duty of best execution” requires a broker-dealer to use reasonable efforts to maximize the economic benefit to the client in each transaction; a broker-dealer who accepts such an order while intending to breach that duty makes a misrepresentation that is material to the purchase or sale of a security and, if the order was executed in a manner inconsistent with this duty, it was also performed with scienter, for the purpose of a rule 10b-5 claim. *Id. at 173*.

The concept of economic loss is separate from the issue of loss causation. *Id. at 177*. Loss causation is a statutory element of private securities fraud claims under Rule 10b-5. *Id.* “[F]ailure to show actual damages is a fatal defect in a Rule 10b-5 cause of action.” *Id.* (quoting *Feldman v. Pioneer Petroleum, Inc.*, 813 F.2d 296, 302 (10th Cir.1987)). In an action for breach of duty of best execution, “[t]he economic loss that plaintiffs claim would be the difference between the price at which their trades were executed and the ‘better’ price allegedly available from an alternative trading source.” *Id. at 178* (also noting that if a better price were not available for a particular trade, then a class member could not have suffered injury and cannot maintain a Rule 10b-5 claim).

### III. DISCUSSION

#### A. Findings

The court has conducted a *de novo* review of the parties’ submissions in support of and against the plaintiff’s motion for class certification. The court has also reviewed the transcript of the hearing, the exhibits and the expert reports. On *de novo* review, the

court finds that the plaintiff's objections to the F&R should be sustained, the F&R of the Magistrate Judge should not be adopted, and the plaintiff's motion for class certification should be granted.

The court finds, on "rigorous analysis," that the plaintiff has demonstrated each of the prerequisites for certification. The plaintiff has satisfied his burden of showing numerosity, commonality, typicality and adequacy of representation. In making this determination the court credits the testimony of Haim Bodek and Dr. Shane Corwin and finds their methodology is the product of reliable scientific principles that are relevant and reliable as applied to the facts of the case.

The court agrees with the plaintiff's experts that some of Dr. Kleidon's criticisms of Bodek's methodology are valid. The court finds, however, that Bodek's rebuttal analysis addresses those legitimate criticisms. Kleidon's criticisms and Bodek's responses thereto demonstrate that the algorithmic classifier used in the methodology can be refined. The implementation of the exclusions identified in Bodek's rebuttal report will eliminate the potential for identifying and including unavoidable harm or harm due to variables other than best execution or payment for order flow in damages determinations. Bodek, in fact, concedes that Kleidon's criticisms effectively improve his methodology. The plaintiff has shown a loss caused by the defendant's alleged breach of duty of best execution. It is the quantum of the loss that remains to be determined.

The court is not persuaded by Dr. Kleidon's testimony that a common class-wide methodology is not feasible. That position does not reflect the economic reality and the existing practices of the market—an industry employing systems that algorithmically

process orders and make routing decisions on an order-by-order basis. The record shows that the trades analyzed by the plaintiff's experts were routed by the defendant pursuant to an algorithm. The methodology of analysis proposed by the plaintiff is the same method the defendant uses to route orders in the first place. The plaintiff has shown that the SEC, FINRA and the Department of Justice use similar methods to analyze execution quality. Similar algorithms are used by academics and regulators. The experts' use and analysis of sophisticated computer algorithms has been approved in a securities fraud context. See [\*In re NYSE Specialists Sec. Litig.\*, 260 F.R.D. 55, 66-69 \(S.D.N.Y. 2009\)](#). This methodology is not a radical departure or novel approach; rather, it is the industry standard.<sup>5</sup>

Kleidon's other critiques relate mainly to a problem of the defendant's own making—the limited amount of data to analyze. Defendant TD Ameritrade urged the court to limit discovery at the class-certification stage, it cannot now be heard to complain that the data it provided is inadequate.

Also, the court respectfully disagrees with the Magistrate Judge's reliance on individual trading strategy as a factor that weighs against class certification. The court places little weight on Dr. Kleidon's testimony that individual trading strategy must be considered, rather the court agrees with Bodek's conclusion that trading strategy is not a relevant factor in a best execution analysis. The inquiry is whether the customer was harmed by a failure to provide best execution on a specific order. Other trades are not relevant. The allegations are that the defendant's order routing policies are uniform

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<sup>5</sup> The fact that the algorithm itself (actual computer code) was not produced to the defendant or his expert is of little consequence. The results of the algorithm are in the experts' reports.

policies and treat each customer the same way. The class claims all relate to an alleged systematic failure to comply with the best-execution duty.

Further, the fact that other courts have denied class certification in securities fraud-best execution cases is of no consequence to this decision. Those cases involved different proof than that presented in this case.

## B. Rule 23 Analysis

TD Ameritrade does not contest that the proposed class is sufficiently numerous under Rule 23(a)(1), assuming the class could be ascertainably defined and the other Rule 23 requirements are met.<sup>6</sup> The court finds the class can be ascertained by

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<sup>6</sup> The defendant argues the class cannot be ascertained, however, contending that the plaintiff's proposed definition is a fail-safe class. A "fail-safe class," is "one that is defined so that whether a person qualifies as a member depends on whether the person has a valid claim" on the merits. [Messner v. Northshore Univ. HealthSystem](#), 669 F.3d 802, 825 (7th Cir. 2012). "Stated otherwise, the class definition is framed as a legal conclusion." [In re Rodriguez](#), 695 F.3d 360, 370 (5th Cir. 2012).

There is some debate within the federal courts as to whether a "fail-safe class" is inherently problematic, and the Eighth Circuit has not weighed in on this debate. Compare, e.g., *id.* ("our precedent rejects the fail-safe class prohibition"); [In re Autozone, Inc., Wage and Hour Emp't Practices Litig.](#), 289 F.R.D. 526, 545-46, (N.D. Cal. 2012) (discussing cases) (noting "it is not clear that the Ninth Circuit forbids fail-safe classes") with [Randleman v. Fidelity Nat'l Title Ins. Co.](#), 646 F.3d 347, 352 (6th Cir. 2011) (stating that a class that includes only those who are "entitled" to relief . . . is an improper fail-safe class that shields the putative class members from receiving an adverse judgment); [McCaster v. Darden Rests., Inc.](#), 845 F.3d 794, 799 (7th Cir. 2017) (class definition that "plainly turns on whether the former employee has a valid claim" is a "class fail-safe class, and the district court properly rejected it").

Moreover, in the face of a "fail-safe class," district courts have broad discretion to redefine the class in order to avoid issues that such a class definition may present. See, e.g., [Messner](#), 669 F.3d at 825 ("Defining a class so as to avoid, on one hand, being over-inclusive and, on the other hand, the fail-safe problem is more of an art than a science. Either problem can and often should be solved by refining the class definition rather than by flatly denying class certification on that basis."); see also, e.g., [Campbell v. First Am. Title Ins. Co.](#), 269 F.R.D. 68, 73-74 (D. Me. 2010); (revising class definition to avoid "fail-safe class" concerns); [Demmick v. Cellco P'ship](#), No. 06-2163 (JLL), 2010 WL 3636216, at \*6-7 (D.N.J. Sept. 8, 2010) (same); [Dodd-Owens v. Kyphon, Inc.](#), No. C 06-3988 JF (HRL), 2007 WL 420191, at \*3 (N.D. Cal. Feb. 5, 2007) (same).

The court finds the "fail safe" argument is unavailing. The proposed class definition is not dependent on a class member having a valid claim on the merits. The parties can reasonably understand the definition to incorporate Bodek's methodology. Bodek has proposed a feasible algorithmic method to identify best execution failures in the form of slippage (i.e., executions at an inferior price), adverse selection (i.e., executions associated with unfavorable price moves), and opportunity cost (i.e., unfilled

information contained in the defendant's records and the plaintiff has shown that computer analysis of those records is feasible. The plaintiff has shown that the determination can be made once there is full discovery of trading data and order routing methods. After consideration of the number of persons in the proposed class, the nature of the action, the size of the individual claims, the inconvenience of trying individual suits, and other factors relevant to the practicality of joining all the putative class members, the court finds the plaintiff satisfies the numerosity requirement.

The plaintiff has also shown commonality. The core of the plaintiff's suit is based on the same law and common facts. The fact that individuals have claims that relate to different securities, different trades, and different amounts of damages is of little consequence to the commonality of the class. The legal issues will involve proof of the same elements of liability, except for the amount of damages, on the claims of all class members. Based upon the evidence presented, the court finds the commonality requirement has been satisfied as to the class as a whole.

Further, the plaintiff has shown typicality and adequacy of representation. The putative representative plaintiff traded securities during the relevant time period, his trades were routed and executed pursuant to TD Ameritrade's order-routing procedures, he suffered economic harm and his claims are based on the same alleged wrongful conduct as other putative class members' claims. His interests are identical to the

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orders that could have filled with proper routing practices) and to measure corresponding economic harm across the class. Whether or not TD Ameritrade's official order routing practices and policies violated its duty of best execution is the central issue in this case. Resolution of the merits of the class members' claims awaits discovery, motion practice, and eventually, trial.



interests of the class. Accordingly, the court finds the plaintiff's claims and arguments are typical of the proposed class members' claims.

The law firm of Levi & Korsinsky, LLP, appears qualified to pursue the litigation. See [Filing No. 27](#), Order Approving the Shum Group as Lead Plaintiff and Approving Selection of Counsel; [Filing No. 189-1](#), Ex. 1.D, Firm Resume. The plaintiff has also shown that Roderick Ford's interests are common to the class and his counsel can vigorously and competently prosecute the lawsuit. Thus, the court finds the plaintiff and his counsel will fairly and adequately protect the interests of the class, meeting the adequacy of representation element under Rule 23(a)(4).

The court further finds that the plaintiff has shown that class action certification is appropriate under [Fed. R. Civ. P. 23\(b\)\(3\)](#). The questions of law or fact common to class members that relate to liability—materiality, scienter, whether the defendant knowingly routed trades to venues in order to maximize its profit without regard to its duty of best execution—predominate over damages issues that affect only individual members. The liability issues are capable of being proved by common, class-wide proof. Common questions of defendant's liability predominate over questions of the quantum of each class member's economic loss. The class members share the circumstances relevant to the defendant's liability. Individual damage assessments do not predominate over the class's common issues.

The court finds at this point the plaintiff has demonstrated the ability to show on a classwide basis that the class members suffered some economic loss caused by a failure by TD Ameritrade to provide best execution contrary to its public representations. The plaintiff has shown, at this stage of the litigation, that there is a gross measure of

order execution quality that is relevant to the issue of the defendant's compliance with its duty of best execution and he has provided a rough measure of harm suffered as the result of poor execution quality.<sup>7</sup> That showing is sufficient for purposes of class certification. The appropriate measure of damages and/or equitable relief (whether compensatory monetary damages, rescission, or restitution) and the amount of individual damages can be resolved later in the litigation.

The court also disagrees with the Magistrate Judge's finding that a class action is not a superior way to conduct the litigation. The court finds due to the number of plaintiffs and the nature of the claims, a class action is superior to other available methods for fairly and efficiently adjudicating the controversy. Individual actions or arbitrations are not a realistic alternative to a class action in these circumstances. Class members would have little interest in individually controlling the prosecution of separate actions because the amount of a probable damage award will be small. It is not likely that many customers would seek to vindicate their rights on their own. Each case would require the same sort of expert analysis as presented herein, making the case too expensive for an individual to prosecute.<sup>8</sup> The court finds it is unlikely that the class members would pursue their claims individually due to the resources required to litigate

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<sup>7</sup> TD Ameritrade's arguments in this regard—that the plaintiff's failure to show damages means the action cannot proceed because it has failed to prove an element of its claim—conflates proof of injury or damages and calculation of damages. Proof of injury is subject to common proof (by virtue of showing that uniform order-routing policies did not fulfill the duty of best-execution and harmed customers, the harm arose from the process by which each client's trade was executed, not its outcome) while calculation of damages requires individual proof. See Brian J. Wanamaker, [Class Actions and Rule 10b-5: A Critique of \*Newton v. Merrill Lynch\*](#), 80 Wash. U. L.Q. 997, 1020 (2002).

<sup>8</sup> Also, the fact that the plaintiffs in similar cases did not pursue securities fraud actions once state-law claims were dismissed as preempted by SLUSA is an indication of the difficulty of separately litigating such claims. See, e.g., *Zola v. TD Ameritrade*, No. 8:14CV288 (D. Neb.); *Verdieck v. TD Ameritrade*, No. 8:14CV289 (D. Neb.); *Lerner v. TD Ameritrade*, No. 8:14CV325, (D. Neb.); and *Sarbacker v. TD Ameritrade*, No. 8:14CV341 (D. Neb.).

a claim of this nature. Resolution of the plaintiffs' claims will not require individualized scrutiny because the core issues with respect to liability are the same for all of the plaintiffs. The plaintiff has shown that the marginal cost of running a more extensive analysis on a class-wide basis using the analytical software used by Bodek in his preliminary assessment is relatively low, whereas the process would be cost prohibitive if cases were brought individually. The court finds resolution of the claims—at least with respect to liability—through a class action, is an efficient allocation of judicial resources.

With respect to certification of an injunctive relief class, the court finds the motion is premature. The court agrees with the plaintiff that “if TD Ameritrade is still routing orders based on maximizing its own revenue from payment for order flow and liquidity rebates while representing that it is complying with its duty of best execution then an injunction requiring it to cease and desist from this deceptive conduct would be appropriate.” The plaintiff essentially concedes the motion is premature, stating “[a]t this stage and before any merits discovery has been undertaken, Plaintiff reserves his rights to seek any and all of these remedies on behalf of the Class.” [Filing No. 188](#), Plaintiff's Brief at 21. Accordingly, the court will not certify an injunctive class at this time.

### C. Conclusion

This action involves serious and credible allegations of securities fraud and misconduct by TD Ameritrade. The allegations are grounded in TD Ameritrade's misrepresentation and failure to disclose a systematic course of conduct—receipt of payment for order flow and liquidity rebates and order routing to trading venues that

paid them the most, without regard to the duty of best execution, to the detriment of the plaintiffs. Such alleged conduct, if proved, is recognized as securities fraud.<sup>9</sup>

This action was filed in 2014 and merits discovery has yet to commence.<sup>10</sup> The issues in the case have been vigorously pursued by both sides and it is now time to litigate the merits of this action. Without class action status, those harmed by TD Ameritrade's alleged conduct will have no recourse.

IT IS ORDERED:

1. Plaintiff Roderick Ford's objection ([Filing No. 234](#)), to the Findings and Recommendation of the United States Magistrate Judge ([Filing No. 233](#)) is sustained.

2. The Findings and Recommendation of the United States Magistrate Judge ([Filing No. 233](#)) are adopted in part and rejected in part as set forth in this order.

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<sup>9</sup> See *Zola v. TD Ameritrade, Inc.*, 889 F.3d 920, 924 (8th Cir. 2018); *Fleming v. Charles Schwab Corp.*, 878 F.3d 1146, 1154–55 (9th Cir. 2017) (Schwab, putting its own financial interests above those of the putative class, “defrauded their clients by purporting to obtain best execution for their clients’ trading orders while omitting to disclose to their clients that nearly all trades are routed to UBS, regardless of any best execution consideration.”); *Holtz v. JPMorgan Chase Bank, N.A.*, 846 F.3d 928, 932 (7th Cir. 2017) (“A fiduciary that makes a securities trade without disclosing a conflict of interest violates federal securities law . . . [A] broker-dealer that fails to achieve best execution for a customer by arranging a trade whose terms favor the dealer rather than the client has a securities problem, not just a state-law contract or fiduciary-duty problem.”); cf. *Rayner v. E\*TRADE Fin. Corp.*, 248 F.Supp.3d 497, 503 (S.D.N.Y. 2017) (finding allegations that E\*TRADE routed orders to maximize kickback revenue were barred by SLUSA); and *Goldberg v. Bank of Am., N.A.*, 846 F.3d 913, 916 (7th Cir. 2017) (per curiam) (“A claim that a fiduciary that trades in securities for a customer's account has taken secret side payments is well inside the bounds of securities law.”).

<sup>10</sup> The case was transferred to this district on TD Ameritrade's motion. TD Ameritrade filed motions to consolidate and to dismiss. Plaintiff objected to the Magistrate Judge's Findings and Recommendation that the court dismiss the action, and the court sustained the objection and denied the motion to dismiss in part. The court later denied the defendant's motion to stay the action pending the appeals of the related Zola, Verdick, Lerner, and Sarbacker cases. Several motions for protective orders were filed and ruled upon. The plaintiff moved to compel responses to discovery requests. Numerous motions for extensions of time were filed and granted. On an unopposed motion, the matter was stayed pending resolution of objections to the Magistrate Judge's protective order ruling. On joint motions, the progression order was amended twice to extend the progression order. The parties then briefed and filed the present motion for class certification.

3. Plaintiff's motion for class certification, appointment of class representative, and appointment of class counsel ([Filing No. 187](#)) is granted.

4. A class consisting of the following is certified in this action:

All clients of TD Ameritrade between September 15, 2011 and September 15, 2014 who placed orders that did not receive best execution, in connection with which TD Ameritrade received either liquidity rebates or payment for order flow, and who were thereby damaged (the "Class").

5. Lead plaintiff Roderick Ford is appointed class representative; the Clerk of Court is directed to modify the case caption accordingly.

6. The law firm of Levi & Korsinsky LLP is appointed class counsel.

7. The parties are directed to contact the chambers of Magistrate Judge Susan M. Bazis within seven days of the date of this order to arrange further progression of this action.

Dated this 14th day of September, 2018.

BY THE COURT:

s/ Joseph F. Bataillon  
Senior United States District Judge